

Remarks

Claims 1 and 8-12 are pending in the application. Claims 2-4, 6, 7 and 13-17 have been canceled without prejudice. Claims 5 and 18 were canceled without prejudice in a previous Amendment and Response dated June 9, 2003.

Claims 1, 8, 9, 11, and 12 have been amended. Support for the amendments can be found throughout the application, including the claims as originally filed. In particular, see page 1, lines 16-19, where a distinction is made between the types of radioactive imaging: positron emission tomography (PET), single photon emission computed tomography (SPECT), and gamma scintigraphy. Please also see page 7, last paragraph which continues onto page 8. Therefore, no new matter has been added. Importantly, the claim amendments and cancellations should not be construed to be an acquiescence to any of the claim rejections. Rather, the amendments to the claims and cancellations are being made solely to expedite the prosecution of the above-identified application. The Applicants expressly reserve the right to further prosecute the same or similar claims in subsequent patent applications claiming the benefit of priority to the instant application. 35 USC § 120.

Response to Rejections under 35 U.S.C. § 102(e)

Claims 1-4 and 6-11 stand rejected under 35 U.S.C. § 102(e) based on the Examiner's contention that it is anticipated by Edwards et al. (U.S. Patent No. 5,744,120). The Applicants respectfully submit that this rejection is moot for claims 2, 3, 4, 6, and 7 which have been canceled without prejudice. Regarding claims 1 and 8-11, the Applicants respectfully traverse this rejection. Claims 1 and 8-11 as amended are drawn to a cardiovascular imaging agent and a method of imaging cardiovascular tissue wherein the imaging agent comprises a positron emitting radionuclide selected from the following: ^{18}F , ^{68}Ga , ^{62}Cu , or radioactive isotopes of iodine as the radionuclide. Edwards et al. discloses imaging agents wherein the radionuclide is $^{99\text{m}}\text{Tc}$, ^{186}Re , or ^{188}Re (see col. 23, lines 59-61) which are all known gamma emitting radioisotopes. Edwards et al. does not disclose using positron emitting radionuclides selected from the following: ^{18}F , ^{68}Ga ,

⁶²Cu, or radioactive isotopes of iodine as the radionuclide. To be an anticipatory reference, the reference has to disclose each and every element of the claims. Because Edwards et al. does not disclose positron emitting radionuclides selected from the following: ¹⁸F, ⁶⁸Ga, ⁶²Cu, or radioactive isotopes of iodine as the radionuclide, the Applicants respectfully submit that Edwards et al. does not anticipate claims 1 and 8-11.

Accordingly, the Applicants respectfully request the withdrawal of the rejections based on 35 U.S.C. § 102(e).

Response to Rejections under 35 U.S.C. § 103(a)

Claims 12-17 stand rejected under 35 U.S.C. § 103(a) based on the Examiner's contention that they are obvious over Edwards et al. (U.S. Patent No. 5,744,120). The Examiner contends that it would have been obvious to one of ordinary skill in the art at the time the invention was made to generate a kit comprising a radionuclide and cardiovascular targeting component based on the teaching of Edwards et al. The Applicants respectfully submit that this rejection is moot for claims 13-17 which have been canceled without prejudice. The Applicants respectfully traverse this rejection regarding claim 12. The claim as amended is drawn to a kit comprising a cardiovascular imaging agent where the radionuclide is a positron emitting radionuclide selected from the following: ¹⁸F, ⁶⁸Ga, ⁶²Cu, or radioactive isotopes of iodine. Edwards et al. does not disclose nor teach these radionuclides in its imaging agent. Therefore, Edwards et al. does not teach every element of the presently claimed invention. One of ordinary skill in the art would not think to use ¹⁸F, ⁶⁸Ga, ⁶²Cu, or radioactive isotopes of iodine in place of ^{99m}Tc, ¹⁸⁶Re, or ¹⁸⁸Re radionuclides because they are two different types of radionuclides: positron emitting and gamma emitting, respectively. Each set has its own mechanism of radioactive decay and, accordingly, each set has its own distinguishing properties that makes one set more useful than the other depending on the application. For example, positron emission tomography, as the name implies, primarily uses positron emitting radionuclides wherein the emitted radiation is detected in coincidence at a 180° angle which allows for obtaining higher resolution and better quantification properties as

compared to single gamma scintigraphy which works best with gamma emitting radionuclides. Edwards et al. provides no motivation to make such a substitution.

Accordingly, the Applicants respectfully request the withdrawal of the rejections based on 35 U.S.C. § 103(a).

Claim Rejections Based on the Judicially-Created

Doctrine of Obviousness-Type Double Patenting

Claims 1-4 and 6-11 stand rejected under the judicially-created doctrine of obviousness-type double patenting, based on the Examiner's contention that they are not patentably distinct from claims 1, 2, 6-9, 12-14, 16, 17, 31, 33, and 35 in United States Patent 6,299,857.

The Applicants respectfully submit that this rejection is moot for claims 2-4, 6, and 7 which have been canceled without prejudice. Regarding claims 1 and 8-11, the Applicants respectfully disagree with the Examiner's contention that these claims are not patentably distinct over claims 1, 2, 6-9, 12-14, 16, 17, 31, 33, and 35 in United States Patent 6,299,857. However, solely to expedite prosecution to allowance of the pending claims, the Applicants submit herewith a terminal disclaimer, which complies with the requirements of 37 CFR 1.321(c), corresponding to US 6,299,857, accompanied by a check for the required fee for a Small Entity.

Accordingly, the Applicants respectfully request the withdrawal of the obviousness-type double patenting rejection of the claims.

Fees

The Applicants believe they have provided for the required fees in connection with the filing of this paper. Nevertheless, the Director is hereby authorized to charge any additional required fee to our Deposit Account, **06-1448**.

Conclusion

For the foregoing reasons, the Applicants respectfully request reconsideration and withdrawal of the pending rejections. Applicants believe that the pending claims are now in condition for allowance and early notification to this effect is earnestly solicited. If any questions are raised by this Amendment and Response, the Examiner is urged to contact the undersigned at the telephone number listed below.

Respectfully submitted,
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